

AMENDMENTS TO THE CLAIMS

In the claims, please amend claims 1-3, 5-10 and 13-18 as follows:

1. (currently amended) A process for delivering a polynucleotide into an extravascular to a parenchymal cell in a tissue of a mammalian limb *in vivo*, comprising:
 - a) inserting the polynucleotide in a solution into the lumen of into a blood vessel of the limb supplying or draining the tissue, wherein insertion of the solution increases the permeability of blood vessels in the tissue;
 - b) passing the polynucleotide through the blood vessel into the extravascular space applying pressure to the limb epidermis to impede fluid flow in the vessel; and
 - c) delivering the polynucleotide into the extravascular parenchymal cell; and,
 - d) ~~expressing the polynucleotide.~~
2. (currently amended) The process of claim 1 wherein inserting the polynucleotide results in increasing the permeability of blood vessels in the limb tissue consists of increasing pressure within the blood vessels in the tissue.
3. (currently amended) The process of claim 2 wherein increasing the pressure permeability consists of increasing a volume of fluid within the blood vessels within the tissue limb.
4. (original) The process of claim 3 wherein increasing the volume consists of inserting a solution containing the polynucleotide into the blood vessel.
5. (currently amended) The process of claim 4 wherein increased pressure permeability is controlled by altering the rate of insertion of the volume into the vessel.
6. (currently amended) The process of claim 5 wherein the blood vessel consists of a tail vein 1 wherein applying pressure to the limb epidermis consists of applying an external cuff.
7. (currently amended) The process of claim 1 wherein the cell is selected from the group consisting of a liver cell, spleen cell, heart cell, kidney cell, prostate cell, skin cell, testis cell, an arm skeletal muscle cell and a leg skeletal muscle cell, fat cell, bladder cell, brain cell, pancreas cell, thymus cell, and lung cell.
8. (currently amended) A process for delivering a polynucleotide complexed with a compound into an extravascular a parenchymal cell of a mammal *in vivo*, comprising:
 - a) making a polynucleotide-compound complex wherein the zeta potential of the complex is less negative than the polynucleotide alone;
 - b) adding another compound to the complex to increase zeta potential negativity of the complex from the previous step;
 - c) inserting the complex into a mammalian blood vessel of the limb;
 - d) applying pressure to the limb epidermis to impede fluid flow in the vessel; and, increasing the permeability of the blood vessel; wherein the polynucleotide passes through the blood vessel wall;
 - e) delivering the polynucleotide into the mammalian extravascular parenchymal cell; and,
 - f) expressing the polynucleotide.

9. (currently amended) The process of claim 8 wherein inserting the complex results in increasing the permeability of the blood vessels in the limb consists of increasing pressure against blood vessel walls.
10. (currently amended) The process of claim 9 wherein increasing the pressure permeability consists of increasing a volume of fluid within the blood vessel limb.
11. (original) The process of claim 10 wherein increasing the volume consists of inserting a solution containing the polynucleotide into the blood vessel.
12. (original) The process of claim 11 wherein a specific volume of the solution is inserted within a specific time period.
13. (currently amended) The process of claim 12 wherein increased ~~pressure~~ permeability is controlled by altering the volume of the solution in relation to the time period of insertion.
14. (currently amended) The process of claim ~~13~~ 8 wherein applying pressure to the limb epidermis consists of applying an external cuff.
15. (currently amended) The process of claim 8 wherein the cell is selected from the group consisting of a liver cell, ~~spleen cell, heart cell, kidney cell, prostate cell, skin cell, testis cell, an arm skeletal muscle cell and a leg skeletal muscle cell, fat cell, bladder cell, brain cell, pancreas cell, thymus cell, and lung cell.~~
16. (currently amended) The process of claims 1 or 8 wherein the polynucleotide is inserted in at least a 1 milliliter solution.
17. (currently amended) The process of claims 1 or 8 wherein the ~~extravascular parenchymal cell consists of an hepatocyte arm skeletal muscle cell~~ the process additionally comprises administering immunosuppressive treatment to the mammal.
18. (currently amended) The process of claim ~~47~~ 6 or 14 wherein ~~intrahepatic parenchymal pressure is at least 10 mm mercury~~ the cuff is selected from the group consisting of a tourniquet and a sphygmomanometer.
- 19-20. (withdrawn)